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NEWS 4	APR 04	STN AnaVist $500 visualization usage credit offered
NEWS 5	MAY 10	CA/CAplus enhanced with 1900-1906 U.S. patent records
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NEWS 7	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS 8	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
NEWS 9	MAY 30	The F-Term thesaurus is now available in CA/CAplus
NEWS 10	JUN 02	The first reclassification of IPC codes now complete in INPADOC
NEWS 11	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS 12	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS 13	JUl 07	Coverage of Research Disclosure reinstated in DWPI
NEWS 14	JUl 11	CHEMSAFE reloaded and enhanced

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
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FILE 'HOME' ENTERED AT 15:13:36 ON 13 JUL 2006

=> (fluorescen? (s) fluctuat?) or fluorescence (w) correlation
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
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=> fil medline biosis caplus scisearch embase wpids
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                               1.89       1.89

FILE 'MEDLINE' ENTERED AT 15:19:09 ON 13 JUL 2006

FILE 'BIOSIS' ENTERED AT 15:19:09 ON 13 JUL 2006
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FILE 'CAPLUS' ENTERED AT 15:19:09 ON 13 JUL 2006
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FILE 'WPIDS' ENTERED AT 15:19:09 ON 13 JUL 2006
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=> (fluorescen? (s) fluctuat?) or fluorescence (w) correlation
L1        6474 (FLUORESCEN? (S) FLUCTUAT?) OR FLUORESCENCE (W) CORRELATION

=> pathogen and l1
L2          27 PATHOGEN AND L1

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           22 DUP REM L2 (5 DUPLICATES REMOVED)

=> py>2002
<------User Break------>

=> py>2002 and l3
L4          14 PY>2002 AND L3

=> t ti l3 1-22

L3   ANSWER 1 OF 22  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
TI   Detection of prion particles in samples of BSE and scrapie by
     fluorescence correlation spectroscopy without proteinase
     K digestion.

L3   ANSWER 2 OF 22  CAPLUS  COPYRIGHT 2006 ACS on STN
TI   Antibody and fluorescently labeled antibody fragment specific to different
     epitopes of same antigen for immunodetection of prion or food antigen

L3   ANSWER 3 OF 22  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
TI   Disassembly of structurally modified viral nanoparticles: characterization
     by fluorescence correlation spectroscopy.

L3   ANSWER 4 OF 22  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
TI   Molecular and structural characterization of fluorescent human parvovirus
     B19 virus-like particles.

L3   ANSWER 5 OF 22  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
TI   Membrane perturbation effects of peptides derived from the N-termini of
```

unprocessed prion proteins.

L3 ANSWER 6 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Measuring protein-protein interactions inside living cells using single color fluorescence correlation spectroscopy.
Application to human immunodeficiency virus type I integrase and LEDGF/p75.

L3 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
TI Method of measuring molecular interactions

L3 ANSWER 8 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Effect of metal ions on de novo aggregation of full-length prion protein.

L3 ANSWER 9 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Assembly of fluorescent chimeric virus-like particles of canine parvovirus in insect cells.

L3 ANSWER 10 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI HIV-1 nucleocapsid protein binds to the viral DNA initiation sequences and chaperones their kissing interactions.

L3 ANSWER 11 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Observation of a fluorescently labelled virus on its infectious entry pathway into the cell using Fluorescence Correlation Spectroscopy.

L3 ANSWER 12 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Monitoring human parvovirus B19 virus-like particles and antibody complexes in solution by fluorescence correlation spectroscopy.

L3 ANSWER 13 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Direct measurement of Gag-Gag interaction during retrovirus assembly with FRET and fluorescence correlation spectroscopy.

L3 ANSWER 14 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Destabilization of the HIV-1 complementary sequence of TAR by the nucleocapsid protein through activation of conformational fluctuations.

L3 ANSWER 15 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Molecular diagnostics of transmissible spongiform encephalopathies.

L3 ANSWER 16 OF 22 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
TI Species-specific detection of organisms, particularly for identifying bacteria causing sepsis, comprises amplification and elongation of ribosomal nucleic acid.

L3 ANSWER 17 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fluorescence correlation spectroscopy for in vivo monitoring of resistance mechanisms.

L3 ANSWER 18 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Putting prions into focus: Application of single molecule detection to the

diagnosis of prion diseases.

L3 ANSWER 19 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Rapid and reproducible quantification of hepatitis C virus cDNA by fluorescence correlation spectroscopy.

L3 ANSWER 20 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fluorescence correlation spectroscopy for rapid and sensitive HCV RNA quantification.

L3 ANSWER 21 OF 22 MEDLINE on STN DUPLICATE 2
TI Fluorescence correlation analysis of probe diffusion simplifies quantitative pathogen detection by PCR.

L3 ANSWER 22 OF 22 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Fluorescence correlations, single molecule detection and large number screening. Applications in biotechnology.

```
=> e wolf david?/au
E1            1     WOLF DAVID S/AU
E2            1     WOLF DAVID SCOTT/AU
E3            0 --> WOLF DAVID?/AU
E4            1     WOLF DE/AU
E5            1     WOLF DE AGUIAR ROGERIO/AU
E6            1     WOLF DE JONGE I C D/AU
E7            2     WOLF DE JONGE I C D Y M/AU
E8            1     WOLF DEBORAH/AU
E9            1     WOLF DEITER H/AU
E10           1     WOLF DEITRICH E/AU
E11           8     WOLF DELIA/AU
E12           1     WOLF DENIS P/AU

=> e wolf david E?/au
E1           23     WOLF DAVID C/AU
E2           72     WOLF DAVID E/AU
E3            0 --> WOLF DAVID E?/AU
E4            1     WOLF DAVID ELLIOT/AU
E5            2     WOLF DAVID H/AU
E6            2     WOLF DAVID I/AU
E7            5     WOLF DAVID J/AU
E8           24     WOLF DAVID L/AU
E9            4     WOLF DAVID LAWRENCE/AU
E10           2     WOLF DAVID PAUL/AU
E11           8     WOLF DAVID R/AU
E12           1     WOLF DAVID S/AU

=> e2 or e4
L5           73 "WOLF DAVID E"/AU OR "WOLF DAVID ELLIOT"/AU

=> d his

     (FILE 'HOME' ENTERED AT 15:13:36 ON 13 JUL 2006)

     FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT
     15:19:09 ON 13 JUL 2006
L1         6474 (FLUORESCEN? (S) FLUCTUAT?) OR FLUORESCENCE (W) CORRELATION
L2           27 PATHOGEN AND L1
L3           22 DUP REM L2 (5 DUPLICATES REMOVED)
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L4            14 PY>2002 AND L3
                 E WOLF DAVID?/AU
                 E WOLF DAVID E?/AU
L5            73 E2 OR E4

=> d5 and l1
L6             0 D5 AND L1

=> l5 and l1
L7             7 L5 AND L1

=> l3 not l7
L8            21 L3 NOT L7

=> d ibib abs l7 1-7

L7   ANSWER 1 OF 7     MEDLINE on STN
ACCESSION NUMBER:    2004022450     MEDLINE
DOCUMENT NUMBER:     PubMed ID: 14719345
TITLE:               Fluorescence correlation spectroscopy:
                     molecular complexing in solution and in living cells.
AUTHOR:              Bulseco Dylan A; Wolf David E
CORPORATE SOURCE:    Sensor Technologies, LLC, Shrewsbury, Massachusetts 01545,
                     USA.
CONTRACT NUMBER:     NS-07366 (NINDS)
                     NS28760 (NINDS)
SOURCE:              Methods in cell biology, (2003) Vol. 72, pp. 465-98.  Ref:
                     53
                     Journal code: 0373334. ISSN: 0091-679X.
PUB. COUNTRY:        United States
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
                     General Review; (REVIEW)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals
ENTRY MONTH:         200403
ENTRY DATE:          Entered STN: 15 Jan 2004
                     Last Updated on STN: 6 Mar 2004
                     Entered Medline: 5 Mar 2004
AB   FCS is an important technique for biophysicists, biochemists, and cell
     biologists.  FCS represents an example of how one can make use of the
     microscope and electronics to extract information beyond the resolution
     limit of classical optics.  It can be used to study single-molecules both
     in solution and in living cells and can be used to monitor a wide variety
     of macromolecular interactions.  When used as an in vitro technique, FCS
     measurements are easy to conduct and can be made on simplified
     instrumentation.  When used in vivo on living cells, many additional
     factors must be considered when evaluating experimental data.  Despite
     these concerns, FCS represents a new approach that has broad applicability
     for the determination of molecular stoichiometry both in vivo and in vitro
     for a variety of membrane and soluble receptor systems.

L7   ANSWER 2 OF 7  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
ACCESSION NUMBER:    2000:191522  BIOSIS
DOCUMENT NUMBER:     PREV200000191522
TITLE:               Global analysis of FCS data: Diffusion of DiIC16 and gp75
                     in the plasma membrane of A875 human melanoma cells.
AUTHOR(S):           Bulseco, Dylan A.; Thompson, Christine A.; Browne,
                     Elizabeth S.; Quinby, Peter R.; Wolf, David E.
SOURCE:              Biophysical Journal, (Jan., 2000) Vol. 78, No. 1 Part 2,
                     pp. 441A. print.
                     Meeting Info.: 44th Annual Meeting of the Biophysical
                     Society. New Orleans, Louisiana, USA. February 12-16, 2000.
```

CODEN: BIOJAU. ISSN: 0006-3495.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 17 May 2000
Last Updated on STN: 4 Jan 2002

L7 ANSWER 3 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:302684 BIOSIS
DOCUMENT NUMBER: PREV199800302684
TITLE: Intranuclear diffusion and hybridization state of oligonucleotides measured by fluorescence correlation spectroscopy in living cells.
AUTHOR(S): Politz, Joan C. [Reprint author]; Browne, Elizabeth S.; Wolf, David E.; Pederson, Thoru
CORPORATE SOURCE: Dep. Biochem. Mol. Biol., Univ. Mass. Med. Cent., Worcester Found. Campus, 222 Maple Ave., Shrewsbury, MA 01545, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (May 26, 1998) Vol. 95, No. 11, pp. 6043-6048. print.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Jul 1998
Last Updated on STN: 15 Jul 1998

AB Fluorescein-labeled oligodeoxynucleotides (oligos) were introduced into cultured rat myoblasts, and their molecular movements inside the nucleus were studied by fluorescence correlation spectroscopy (FCS) and fluorescence recovery after photobleaching (FRAP). FCS revealed that a large fraction of both intranuclear oligo(dT) (43%) and oligo(dA) (77%) moves rapidly with a diffusion coefficient of 4 X 10-7 cm2/s. Interestingly, this rate of intranuclear oligo movement is similar to their diffusion rates measured in aqueous solution. In addition, we detected a large fraction (45%) of the intranuclear oligo(dT), but not oligo(dA), diffusing at slower rates (ltoreq1 X 10-7 cm2/s). The amount of this slower-moving oligo(dt) was greatly reduced if the oligo(dt) was prehybridized in solution with (unlabeled) oligo(dA) prior to introduction to cells, presumably because the oligo(dt) was then unavailable for subsequent hybridization to endogenous poly(A) RNA. The FCS-measured diffusion rate for much of the slower oligo(dt) population approximated the diffusion rate in aqueous solution of oligo(dt) hybridized to a large polyadenylated RNA (1.0 X 10-7 cm2/s). Moreover, this intranuclear movement rate falls within the range of calculated diffusion rates for an average-sized heterogeneous nuclear ribonucleoprotein particle in aqueous solution. A subfraction of oligo(dt) (15%) moved over 10-fold more slowly, suggesting it was bound to very large macromolecular complexes. Average diffusion coefficients obtained from FRAP experiments were in agreement with the FCS data. These results demonstrate that oligos can move about within the nucleus at rates comparable to those in aqueous solution and further suggest that this is true for large ribonucleoprotein complexes as well.

L7 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:121051 CAPLUS
DOCUMENT NUMBER: 140:171955
TITLE: Fluorescence correlation spectroscopy instrument
INVENTOR(S): Bulseco, Dylan A.; Wolf, David E.
PATENT ASSIGNEE(S): Sensor Technologies LLC, USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013620	A1	20040212	WO 2003-US24369	20030801
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2494478	AA	20040212	CA 2003-2494478	20030801
AU 2003261358	A1	20040223	AU 2003-261358	20030801
US 2004082080	A1	20040429	US 2003-632725	20030801
US 2004080750	A1	20040429	US 2003-633385	20030801
EP 1527333	A1	20050504	EP 2003-767160	20030801
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005534944	T2	20051117	JP 2005-506096	20030801

PRIORITY APPLN. INFO.:		
US 2002-400503P	P	20020801
US 2002-430273P	P	20021202
US 2003-461394P	P	20030408
WO 2003-US24369	W	20030801

AB A portable fluorescence correlation spectroscopy instrument is described comprising an excitation source, at least one of a light focusing element positioned to receive light emitted by the excitation source, a detector for detecting light, the detector positioned to receive light emitted by a sample excited by the excitation source, and a correlator coupled to the detector, the correlator for processing data received at the detector and providing data including autocorrelation data, crosscorrelation data, or a combination thereof.

L7 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:121045 CAPLUS
DOCUMENT NUMBER: 140:177861
TITLE: Method of measuring molecular interactions
INVENTOR(S): Wolf, David E.; Bulseco, Dylan A.
PATENT ASSIGNEE(S): Sensor Technologies LLC, USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013610	A2	20040212	WO 2003-US24780	20030801
WO 2004013610	A3	20040521		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2493993	AA	20040212	CA 2003-2493993		20030801
AU 2003259056	A1	20040223	AU 2003-259056		20030801
US 2004082080	A1	20040429	US 2003-632725		20030801
US 2004080750	A1	20040429	US 2003-633385		20030801
EP 1546675	A2	20050629	EP 2003-767274		20030801
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
JP 2005534945	T2	20051117	JP 2005-506103		20030801
PRIORITY APPLN. INFO.:			US 2002-400503P	P	20020801
			US 2002-430273P	P	20021202
			US 2003-461394P	P	20030408
			WO 2003-US24780	W	20030801

AB A method of assaying for the equilibrium interaction of a probe and an unknown target, is described entailing exciting a sample at with radiation, the sample comprising at least a portion of the members of a library, at least one probe, and at least one fluorescent tag; measuring the fluorescence from a subvolume of the sample; and analyzing the fluctuations of the fluorescence. The method may apply for assaying for a pathogen (e.g., bacterium, virus) in a sample. The method may apply for assaying for the presence of a toxin (e.g., ricin) in a sample. A kit comprising a first probe comprising ricin, a fluorescent tag attached to the ricin; and a second probe bound to the first probe, the second probe being adapted to bind ricin is also described. A method of determining a true crosscorrelation function of a sample is also described entailing obtaining a first measured correlation function of the sample from a first detector of a fluorescence correlation spectroscopy instrument; obtaining a second measured correlation function of the sample from a second detector of the instrument; obtaining a measured crosscorrelation function between the first detector and the second detector of the instrument; determining a true crosscorrelation function.

An article of manufacture comprising a computer readable medium having stored therein a computer program for determining a true correlation function of a sample, wherein the computer program comprises a first code segment for obtaining a measured correlation function of the sample; and a second code segment for applying a correction algorithm to the measured correlation function is also described. A fluorescence correlation spectrometer for determining a true correlation function of a sample is also described comprising an excitation source; a first detector and a second detector for measuring fluorescence of the sample; a memory device for storing information related to the sample; and a processor programmed with instruction to obtain a measured correlation function of the sample from a fluorescence correlation spectroscopy instrument and apply a correction algorithm to the measured correlation function.

L7 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1998:806814 CAPLUS
DOCUMENT NUMBER:	130:49505
TITLE:	Method for determining rate of movement of a molecule in a living cell
INVENTOR(S):	Politz, Joan C.; Wolf, David E.; Browne, Elizabeth S.; Pederson, Thoru
PATENT ASSIGNEE(S):	University of Massachusetts, USA
SOURCE:	PCT Int. Appl., 44 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855651	A1	19981210	WO 1998-US10706	19980526
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: US 1997-49852P P 19970605

AB A method for determining the rate of movement of a mol. inside a living cell by fluorescence correlation spectroscopy (FCS) is disclosed. Also disclosed is a method for detecting hybridization of a nucleic acid inside a living cell. The figure is a graph showing autocorrelation curves and best fit curves for fluorescently-labeled oligonucleotides in nuclei of L6 rat myoblasts.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:336307 CAPLUS

DOCUMENT NUMBER: 129:93313

TITLE: Intranuclear diffusion and hybridization state of oligonucleotides measured by fluorescence correlation spectroscopy in living cells

AUTHOR(S): Politz, Joan C.; Browne, Elizabeth S.; Wolf, David E.; Pederson, Thoru

CORPORATE SOURCE: Worcester Foundation Biomedical Res. Dep. Biochem. Molecular Biol., Univ. Massachusetts Medical Cent., Shrewsbury, MA, 01545, USA

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1998), 95(11), 6043-6048 CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fluorescein-labeled oligodeoxynucleotides (oligos) were introduced into cultured rat myoblasts, and their mol. movements inside the nucleus were studied by fluorescence correlation spectroscopy (FCS) and fluorescence recovery after photobleaching (FRAP). FCS revealed that a large fraction of both intranuclear oligo(dT) (43%) and oligo(dA) (77%) moves rapidly with a diffusion coefficient of 4 + 10-7 cm2/s. Interestingly, this rate of intranuclear oligo movement is similar to their diffusion rates measured in aqueous solution In addition, we detected a large fraction (45%) of the intranuclear oligo(dT), but not oligo(dA), diffusing at slower rates (≤1 + 10-7 cm2/s). The amount of this slower-moving oligo(dT) was greatly reduced if the oligo(dT) was prehybridized in solution with (unlabeled) oligo(dA) prior to introduction to cells, presumably because the oligo(dT) was then unavailable for subsequent hybridization to endogenous poly(A) RNA. The FCS-measured diffusion rate for much of the slower oligo(dT) population approximated the diffusion rate in aqueous solution of oligo(dT) hybridized to a large polyadenylated RNA (1.0 + 10-7 cm2/s). Moreover, this intranuclear movement rate falls within the range of calculated diffusion rates for an average-sized heterogeneous nuclear ribonucleoprotein particle in aqueous solution A subfraction of oligo(dT) (15%) moved over 10-fold more slowly, suggesting it was bound to very large macromol. complexes. Average diffusion coeffs. obtained from FRAP expts. were in agreement with the FCS data. These results demonstrate that oligos can move about within the nucleus at rates comparable to those in aqueous solution and further suggest that this is true for

large ribonucleoprotein complexes as well.
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs l8 1-21

L8 ANSWER 1 OF 21 MEDLINE on STN
ACCESSION NUMBER: 97075073 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8917500
TITLE: Fluorescence correlation analysis of probe diffusion simplifies quantitative pathogen detection by PCR.
AUTHOR: Walter N G; Schwille P; Eigen M
CORPORATE SOURCE: Department of Biochemical Kinetics, Max Planck Institute for Biophysical Chemistry, Gottingen, Germany.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1996 Nov 12) Vol. 93, No. 23, pp. 12805-10.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199612
ENTRY DATE: Entered STN: 28 Jan 1997
Last Updated on STN: 6 Feb 1998
Entered Medline: 30 Dec 1996
AB A sensitive, labor-saving, and easily automatable nonradioactive procedure named APEX-FCS (amplified probe extension detected by fluorescence correlation spectroscopy) has been established to detect specific in vitro amplification of pathogen genomic sequences. As an example, Mycobacterium tuberculosis genomic DNA was subjected to PCR amplification with the Stoffel fragment of Thermus aquaticus DNA polymerase in the presence of nanomolar concentrations of a rhodamine-labeled probe (third primer), binding to the target in between the micromolar amplification primers. The probe becomes extended only when specific amplification occurs. Its low concentration avoids false-positives due to unspecific hybridization under PCR conditions. With increasing portion of extended probe molecules, the probe's average translational diffusion properties gradually change over the course of the reaction, reflecting amplification kinetics. Following PCR, this change from a stage of high to a stage of low mobility can directly be monitored during a 30-s measurement using a fluorescence correlation spectroscopy device. Quantitation down to 10 target molecules in a background of 2.5 micrograms unspecific DNA without post-PCR probe manipulations could be achieved with different primer/probe combinations. The assay holds the promise to concurrently perform amplification, probe hybridization, and specific detection without opening the reaction chamber, if sealable foils are used.

L8 ANSWER 2 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:250891 BIOSIS
DOCUMENT NUMBER: PREV200600243875
TITLE: Detection of prion particles in samples of BSE and scrapie by fluorescence correlation spectroscopy without proteinase K digestion.
AUTHOR(S): Birkmann, Eva; Schaefer, Oliver; Weinmann, Nicole; Dumpitak, Christian; Beekes, Michael; Jackman, Roy; Thorne, Leigh; Riesner, Detlev [Reprint Author]
CORPORATE SOURCE: Univ Dusseldorf, Inst Biol Phys, Univ Str 1, D-40225 Dusseldorf, Germany

riesner@biophys.uni-duesseldorf.de
SOURCE: Biological Chemistry, (JAN 2006) Vol. 387, No. 1, pp. 95-102.
ISSN: 1431-6730.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Apr 2006
Last Updated on STN: 26 Apr 2006

AB A characteristic feature of prion diseases such as bovine spongiform encephalopathy (BSE) is the accumulation of a pathological isoform of the host-encoded prion protein, PrP. In contrast to its cellular isoform PrPC, the pathological isoform PrPSc forms insoluble aggregates. All commercial BSE tests currently used for routine testing are based on the proteinase K (PK) resistance of PrP, but not all pathological PrP is PK-resistant. In the present study, single prion particles were counted by fluorescence correlation spectroscopy (FCS). The property of PK resistance is not required, i.e., both the PK-resistant and the PK-sensitive parts of the prion particles are detectable. PrP aggregates were prepared from the brains of BSE-infected cattle, as well as from scrapie-infected hamsters, by the NaPTA precipitation method without PK digestion. They were labeled using two different PrP-specific antibodies for FCS measurements in the dual-color mode (2D-FIDA). Within the limited number of samples tested, BSE-infected cattle and scrapie-infected hamsters in the clinical stage of the disease could be distinguished with 100% specificity from a control group. Thus, a diagnostic tool for BSE detection with complete avoidance of PK treatment is presented, which should have particular advantages for testing animals in the preclinical stage.

L8 ANSWER 3 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:127126 BIOSIS
DOCUMENT NUMBER: PREV200600114592
TITLE: Disassembly of structurally modified viral nanoparticles: characterization by fluorescence correlation spectroscopy.
AUTHOR(S): Toivola, Jouni; Gilbert, Leona; Michel, Patrik; White, Daniel; Vuento, Matti; Oker-Blom, Christian [Reprint Author]
CORPORATE SOURCE: Univ Jyvaskyla, Dept Biol and Environm Sci, POB 35, Jyvaskyla 40014, Finland
christian.oker-blom@jyu.fi
SOURCE: Comptes Rendus Biologies, (DEC 2005) Vol. 328, No. 12, pp. 1052-1056.
ISSN: 1631-0691.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Feb 2006
Last Updated on STN: 15 Feb 2006

AB Analysis of the breakdown products of engineered viral particles can give useful information on the particle structure. We used various methods to breakdown both a recombinant enveloped virus and virus-like particles (VLPs) from two non-enveloped viruses and analysed the resulting subunits by fluorescence correlation spectroscopy (FCS).
Analysis of the enveloped baculovirus, Autographa californica multicapsid nucleopolyhedrovirus (AcMNPV), displaying the green fluorescent protein (GFP) fused to its envelope protein gp64 was performed in the presence and absence of 5 mM SDS and 25 mM DTT. Without treatment, the viral particle showed a diffusion time of 3.3 ms. In the presence of SDS, fluorescent subunits with diffusion times of 0.2 ms were observed. Additional treatment with DTT caused a drop in the diffusion time to 0.1 ms. Changes in the amplitude of the autocorrelation function suggested a 3-fold increase in fluorescent particle number when viral particles were treated

with SDS, and a further 1.5-fold increase with additional treatment with DTT. Thus, the data showed that an average of 4.5 molecules of gp64-GFP was incorporated in the membrane of the modified baculovirus. Further, this suggests that each fluorescent gp64 trimer carries on average 1.5 fluorescent units. Similar experiments were carried out with two non-enveloped fluorescent virus-like particles (fVLPs) that displayed enhanced green fluorescent protein (EGFP). These, fVLPs of canine and human B 19 parvoviruses were treated with 6 M urea and 5 mM SDS, respectively. Correspondingly, the original hydrodynamic radii of 17 and 14 nm were reduced to 9 and 5 nm after treatment. Here, the change in the amplitude of the autocorrelation curve suggested a 10-fold increase in particle number when viral particles of CPV were treated with 6 M urea at 50 degrees C for 10 min. For EGFP-13 19, there was a decrease in the amplitude, accompanied by a 9-fold increase in the number of fluorescent units with SDS treatment. The results showed that approximately 10 and 9 fluorescent units were associated with the corresponding CPV and B 19 VLPs. In summary, we were able to estimate the number of fluorescent subunits in a baculovirus containing a GFP-fusion with its gp64 envelope protein and in two different parvo-VLPs containing EGFP-fused with their VP2 capsid proteins.

L8 ANSWER 4 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:86447 BIOSIS
DOCUMENT NUMBER: PREV200600080673
TITLE: Membrane perturbation effects of peptides derived from the N-termini of unprocessed prion proteins.
AUTHOR(S): Mapzoub, Mazin; Oglecka, Kamila; Pramanik, Aladdin; Eriksson, L. E. Goran; Graslund, Astrid [Reprint Author]
CORPORATE SOURCE: Stockholm Univ, Arrhenius Lab, Dept Biochem and Biophys, S-10691 Stockholm, Sweden
astrid@dbb.su.se
SOURCE: Biochimica et Biophysica Acta, (OCT 15 2005) Vol. 1716, No. 2, pp. 126-136.
ISSN: 0005-2736.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Jan 2006
Last Updated on STN: 25 Jan 2006

AB Peptides derived from the unprocessed N-termini of mouse and bovine prion proteins (mPrPp and bPrPp, respectively), comprising hydrophobic signal sequences followed by charged domains (KKRPKP), function as cell-penetrating peptides (CPPs) with live cells, concomitantly causing toxicity. Using steady-state fluorescence techniques, including calcein leakage and polarization of a membrane probe (diphenylhexatriene, DPH), as well as circular dichroism, we studied the membrane interactions of the peptides with large unilamellar phospholipid vesicles (LUVs), generally with a 30% negative surface charged density, comparing the effects with those of the CPP penetratin (pAntp) and the pore-forming peptide melittin. The prion peptides caused significant calcein leakage from LUVs concomitant with increased membrane ordering. Fluorescence correlation spectroscopy (FCS) studies of either rhodamine-entrapping (REVs) or rhodamine-labeled (RLVs) vesicles, showed that addition of the prion peptides resulted in significant release of rhodamine from the REVs without affecting the overall integrity of the RLVs. The membrane leakage effects due to the peptides had the following order of potency: melittin > mPrPp > bPrPp > pAntp. The membrane perturbation effects of the N-terminal prion peptides suggest that they form transient pores (similar to melittin) causing toxicity in parallel with their cellular trafficking. (c) 2005 Elsevier B.V. All rights reserved.

L8 ANSWER 5 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:303857 BIOSIS
DOCUMENT NUMBER: PREV200510086544
TITLE: Molecular and structural characterization of fluorescent human parvovirus B19 virus-like particles.
AUTHOR(S): Gilbert, Leona; Toivola, Jouni; White, Daniel; Ihalainen, Teemu; Smith, Wesley; Lindholm, Laura; Vuento, Matti; Oker-Blom, Christian [Reprint Author]
CORPORATE SOURCE: Univ Jyvaskyla, Dept Biol and Environm Sci, POB 35, FIN-40014 Jyvaskyla, Finland
christian.oker-blom@jyu.fi
SOURCE: Biochemical and Biophysical Research Communications, (JUN 3 2005) Vol. 331, No. 2, pp. 527-535.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Aug 2005
Last Updated on STN: 15 Aug 2005

AB Although sharing a T = 1 icosahedral symmetry with other members of the Parvoviridae family, it has been suggested that the fivefold channel of the human parvovirus B19 VP2 capsids is closed at its outside end. To investigate the possibility of placing a relatively large protein moiety at this site of 1319, fluorescent virus-like particles (fVLPs) of B19 were developed. The enhanced green fluorescent protein (EGFP) was inserted at the N-terminus of the structural protein VP2 and assembly of fVLPs from this fusion protein was obtained. Electron microscopy revealed that these fluorescent protein complexes were very similar in size when compared to wild-type B19 virus. Further, fluorescence correlation spectroscopy showed that an average of nine EGFP domains were associated with these virus-like structures. Atomic force microscopy and immunoprecipitation studies showed that EGFP was displayed on the surface of these fVLPs. Confocal imaging indicated that these chimeric complexes were targeted to late endosomes when expressed in insect cells. The FVLPs were able to efficiently enter cancer cells and traffic to the nucleus via the microtubulus network. Finally, immunoglobulins present in human parvovirus B19 acute and past-immunity serum samples were able to detect antigenic epitopes present in these fVLPs. In summary, we have developed fluorescent virus-like nanoparticles displaying a large heterologous entity that should be of help to elucidate the mechanisms of infection and pathogenesis of human parvovirus B19. In addition, these B 19 nanoparticles serve as a model in the development of targetable vehicles designed for delivery of biomolecules. (c) 2005 Elsevier Inc. All rights reserved.

L8 ANSWER 6 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:235886 BIOSIS
DOCUMENT NUMBER: PREV200510020951
TITLE: Measuring protein-protein interactions inside living cells using single color fluorescence correlation spectroscopy. Application to human immunodeficiency virus type I integrase and LEDGF/p75.
AUTHOR(S): Maertens, Goedele; Vercammen, Jo; Debyser, Zeger; Engelborghs, Yves [Reprint Author]
CORPORATE SOURCE: Katholieke Univ Leuven, Lab Biomol Dynam, Celestijnenlaan 200D, B-3001 Louvain, Belgium
Yves.Engelborghs@fys.kuleuven.ac.be
SOURCE: FASEB Journal, (MAR 2005) Vol. 19, No. 3.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Jun 2005
Last Updated on STN: 23 Jun 2005

AB Recently we described the interaction of human immunodeficiency virus type

1 (HIV-1)(1) integrase (IN) with a cellular protein, lens epithelium-derived growth factor/transcription coactivator p75 (LEDGF/p75). We now present the study of the diffusion behavior of the three independent domains of IN and LEDGF/p75 using fluorescence correlation microscopy (FCM). We show that diffusion in the cell of the different enhanced green fluorescent protein (EGFP) fusion proteins is described by two components with different fractions and that the average parameters in the nucleus are comparable with those in the cytoplasm. In addition, we demonstrate that specific interaction between EGFP-fused HIV-1 IN and LEDGF/p75 results in a shift in diffusion coefficient (D). The opposite shift was observed in an IN-deletion mutant that does not exhibit LEDGF/p75 binding or in a LEDGF/p75 knock-down experiment using siRNA. We thus demonstrate that protein-protein interactions can be studied in living cells, using single-color FCM (scFCM).

L8 ANSWER 7 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:114490 BIOSIS
DOCUMENT NUMBER: PREV200500111906
TITLE: Observation of a fluorescently labelled virus on its infectious entry pathway into the cell using Fluorescence Correlation Spectroscopy.
AUTHOR(S): Bernacchi, Serena; Mueller, Gabriele; Langowski, Joerg; Waldeck, Waldemar
SOURCE: Biochemical Society Transactions, (August 2004) Vol. 32, No. Part 4, pp. 121A. print.
Meeting Info.: BioScience2004: From Molecules to Organisms. Glasgow, UK. July 18-22, 2004. The Biochemical Society.
CODEN: BCSTB5. ISSN: 0300-5127.
DOCUMENT TYPE: Conference; (Meeting)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Mar 2005
Last Updated on STN: 23 Mar 2005

L8 ANSWER 8 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:461167 BIOSIS
DOCUMENT NUMBER: PREV200400463059
TITLE: HIV-1 nucleocapsid protein binds to the viral DNA initiation sequences and chaperones their kissing interactions.
AUTHOR(S): Egele, Caroline; Schaub, Emmanuel; Ramalanjaona, Nick; Piemont, Etienne; Ficheux, Damien; Roques, Bernard; Darlix, Jean-Luc; Mely, Yves [Reprint Author]
CORPORATE SOURCE: Fac PharmCNRSUMR 7034,Lab Pharmacol and Phys Chim Interact Cellu, Univ Louis Pasteur Strasbourg 1, 74,Route Rhin, F-67401, Illkirch Graffenstaden, France
mely@pharma.u-strasbg.fr
SOURCE: Journal of Molecular Biology, (September 10 2004) Vol. 342, No. 2, pp. 453-466. print.
ISSN: 0022-2836 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Dec 2004
Last Updated on STN: 1 Dec 2004
AB The chaperone properties of the human immunodeficiency virus type 1 (HIV-1) nucleocapsid protein (NC) are required for the two obligatory strand transfer reactions occurring during viral DNA synthesis. The second strand transfer relies on the destabilization and the subsequent annealing of the primer binding site sequences (PBS) at the 3' end of the (-) and (+) DNA strands. To characterize the binding and chaperone properties of NC on the (-)PBS and (+)PBS sequences, we monitored by

steady-state and time-resolved fluorescence spectroscopy as well as by fluorescence correlation spectroscopy the interaction of NC with wild type and mutant oligonucleotides corresponding to the (-)PBS and (+)PBS hairpins. NC was found to bind with high affinity to the loop, the stem and the single-stranded protruding sequence of both PBS sequences. NC induces only a limited destabilization of the secondary structure of both sequences, activating the transient melting of the stem only during its "breathing" period. This probably results from the high stability of the PBS due to the four G-C pairs in the stem. In contrast, NC directs the formation of "kissing" homodimers efficiently for both (-)PBS and (+)PBS sequences. Salt-induced dimerization and mutations in the (-)PBS sequence suggest that these homodimers may be stabilized by two intermolecular G-C Watson-Crick base-pairs between the partly self-complementary loops. The propensity of NC to promote the dimerization of partly complementary sequences may favor secondary contacts between viral sequences and thus, recombination and viral diversity.

L8 ANSWER 9 OF 21 BIOSIS on STN
ACCESSION NUMBER: 2004:389740 BIOSIS
DOCUMENT NUMBER: PREV200400392380
TITLE: Effect of metal ions on de novo aggregation of full-length prion protein.
AUTHOR(S): Giese, Armin [Reprint Author]; Levin, Johannes; Bertsch, Uwe; Kretzschmar, Hans
CORPORATE SOURCE: Zentrum Neuropathol and Prionforschung, Univ Munich, Munich, Germany
Armin.Giese@med.uni-muenchen.de
SOURCE: Biochemical and Biophysical Research Communications, (August 6 2004) Vol. 320, No. 4, pp. 1240-1246. print.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Oct 2004
Last Updated on STN: 6 Oct 2004

AB It is well established that the prion protein (PrP) contains metal ion binding sites with specificity for copper. Changes in copper levels have been suggested to influence incubation time in experimental prion disease. Therefore, we studied the effect of heavy metal ions (Cu2+, Mn2+, Ni2+, Co2+, and Zn2+) in vitro in a model system that utilizes changes in the concentration of SDS to induce structural conversion and aggregation of recombinant PrP. To quantify and characterize PrP aggregates, we used fluoreseently labelled PrP and cross-correlation analysis as well as scanning for intensely fluorescent targets in a confocal single molecule detection system. We found a specific strong pro-aggregatory effect of Mn2+ at low micromolar concentrations that could be blocked by nanomolar concentration of Cu2+. These findings suggest that metal ions such as copper and manganese may also affect PrP conversion in vivo.

L8 ANSWER 10 OF 21 BIOSIS on STN
ACCESSION NUMBER: 2004:155646 BIOSIS
DOCUMENT NUMBER: PREV200400156914
TITLE: Monitoring human parvovirus B19 virus-like particles and antibody complexes in solution by fluorescence correlation spectroscopy.
AUTHOR(S): Toivola, Jouni; Michel, Patrik O.; Gilbert, Leona; Lahtinen, Tomi; Marjomaki, Varpu; Hedman, Klaus; Vuento, Matti; Oker-Blom, Christian [Reprint Author]
CORPORATE SOURCE: Department of Biological and Environmental Science, University of Jyvaskyla, FIN-40014, P.O. Box 35, Jyvaskyla,

Finland
christian.oker-blom@jyu.fi
SOURCE: Biological Chemistry, (January 2004) Vol. 385, No. 1, pp. 87-93. print.
ISSN: 1431-6730.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Mar 2004
Last Updated on STN: 17 Mar 2004

AB Fluorescence correlation spectroscopy (FCS) was used in monitoring human parvovirus B19 virus-like particle (VLP) antibody complexes from acute phase and past-immunity serum samples. The Oregon Green 488-labeled VLPs gave an average diffusion coefficient of 1.7X10-7 cm2s-1 with an apparent hydrodynamic radius of 14 nm. After incubation of the fluorescent VLPs with an acute phase serum sample, the mobility information obtained from the fluorescence intensity fluctuation by autocorrelation analysis showed an average diffusion coefficient of 1.5X10-8 cm2s-1, corresponding to an average radius of 157 nm. In contrast, incubation of the fluorescent VLPs with a past-immunity serum sample gave an average diffusion coefficient of 3.5X10-8 cm2s-1 and a radius of 69 nm. A control serum devoid of B19 antibodies caused a change in the diffusion coefficient from 1.7X10-7 to 1.6X10-7 cm2s-1, which is much smaller than that observed with acute phase or past-immunity sera. Thus, VLP-antibody complexes with different diffusion coefficients could be identified for the acute phase and past-immunity sera. FCS measurement of VLP-immune complexes could be useful in distinguishing between antibodies present in acute phase or past-immunity sera as well as in titration of the VLPs.

L8 ANSWER 11 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:146893 BIOSIS
DOCUMENT NUMBER: PREV200400151029
TITLE: Assembly of fluorescent chimeric virus-like particles of canine parvovirus in insect cells.
AUTHOR(S): Gilbert, L.; Toivola, J.; Lehtomaki, E.; Donaldson, L.; Kapyla, P.; Vuento, M.; Oker-Blom, C. [Reprint Author]
CORPORATE SOURCE: Department of Biological and Environmental Science, University of Jyvaskyla, P.O. Box 35, Jyvaskyla, FIN-40014, Finland
okerblom@jyu.fl
SOURCE: Biochemical and Biophysical Research Communications, (January 23 2004) Vol. 313, No. 4, pp. 878-887. print.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Mar 2004
Last Updated on STN: 17 Mar 2004

AB Canine parvovirus (CPV) is a small non-enveloped ssDNA virus composed of the viral proteins VP1, VP2, and VP3 with a T=1 icosahedral symmetry. VP2 is nested in VP1 and the two proteins are produced by differential splicing of a primary transcript of the right ORF of the viral genome. The VP2 protein can be further proteolytically cleaved to form VP3. Previous studies have shown that VP1 and VP3 are unnecessary for capsid formation and consequently, that VP2 alone is sufficient for assembly. We have hypothesized that insertion of the enhanced green fluorescent protein (EGFP) at the N-terminus of VP2 could be carried out without altering assembly. To investigate the possibility to develop fluorescent virus-like particles (fVLPs) from such chimeric VP2 proteins, the corresponding fusion construct was abundantly expressed in insect cells. Confocal imaging indicated that the EGFP-VP2 fusion product was assembled to fluorescent capsid-like complexes. In addition, electron micrographs

of purified EGFP-VP2 complexes showed that they displayed a very similar size and appearance when compared to VP2 VLPs. Further, immunolabelling of purified EGFP-VP2 VLPs showed the presence of EGFP within the structure. Fluorescence correlation spectroscopy (FCS) studies confirmed that fVLPs were very similar in size when compared to authentic CPV. Finally, feeding of mammalian cells susceptible to CPV infection with these fVLPs indicated that entry and intracellular trafficking could be observed. In summary, we have developed fluorescent virus-like nanoparticles carrying a heterologous entity that can be utilized as a visualization tool to elucidate events related to a canine parvovirus infection.

L8 ANSWER 12 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:509999 BIOSIS
DOCUMENT NUMBER: PREV200300496950
TITLE: Direct measurement of Gag-Gag interaction during retrovirus assembly with FRET and fluorescence correlation spectroscopy.
AUTHOR(S): Larson, Daniel R.; Ma, Yu May; Vogt, Volker M.; Webb, Watt W. [Reprint Author]
CORPORATE SOURCE: Cornell University School of Applied and Engineering Physics, 212 Clark Hall, Ithaca, NY, 14853, USA www2@cornell.edu
SOURCE: Journal of Cell Biology, (September 29 2003) Vol. 162, No. 7, pp. 1233-1244. print.
CODEN: JCLBA3. ISSN: 0021-9525.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Oct 2003
Last Updated on STN: 29 Oct 2003

AB During retrovirus assembly, the polyprotein Gag directs protein multimerization, membrane binding, and RNA packaging. It is unknown whether assembly initiates through Gag-Gag interactions in the cytosol or at the plasma membrane. We used two fluorescence techniques-two-photon fluorescence resonance energy transfer and fluorescence correlation spectroscopy-to examine Rous sarcoma virus Gag-Gag and -membrane interactions in living cells. Both techniques provide strong evidence for interactions between Gag proteins in the cytoplasm. Fluorescence correlation spectroscopy measurements of mobility suggest that Gag is present in large cytosolic complexes, but these complexes are not entirely composed of Gag. Deletion of the nucleocapsid domain abolishes Gag interactions and membrane targeting. Deletion of the membrane-binding domain leads to enhanced cytosolic interactions. These results indicate that Gag-Gag interactions occur in the cytosol, are mediated by nucleocapsid domain, and are necessary for membrane targeting and budding. These methods also have general applicability to in vivo studies of protein-protein and -membrane interactions involved in the formation of complex macromolecular structures.

L8 ANSWER 13 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2003:161076 BIOSIS
DOCUMENT NUMBER: PREV200300161076
TITLE: Destabilization of the HIV-1 complementary sequence of TAR by the nucleocapsid protein through activation of conformational fluctuations.
AUTHOR(S): Azoulay, Joel; Clamme, Jean-Pierre; Darlix, Jean-Luc; Roques, Bernard P.; Mely, Yves [Reprint Author]
CORPORATE SOURCE: Laboratoire de Pharmacologie et Physico-Chimie des Interactions Cellulaires et Moleculaires, Faculte de

Pharmacie, UMR 7034 CNRS, 74, Route du Rhin, 67401, Illkirch, France
mely@pharma.u-strasbg.fr
SOURCE: Journal of Molecular Biology, (21 February 2003) Vol. 326, No. 3, pp. 691-700. print.
ISSN: 0022-2836 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Mar 2003
Last Updated on STN: 26 Mar 2003

AB The nucleocapsid protein NCp7 of HIV-1 possesses nucleic acid chaperone properties that are critical for the two obligatory strand transfer reactions required for the synthesis of a complete proviral DNA by reverse transcriptase. The first DNA strand transfer relies on the destabilization by NCp7 of double-stranded segments of the transactivation response region (TAR) sequence at the 3' end of the genomic RNA and the complementary sequence cTAR at the 3' terminus of minus strong-stop DNA, the early product of reverse transcription. In order to determine the dynamics of NCp7-mediated nucleic acid destabilization, we investigated by time-resolved fluorescence spectroscopy and two photon fluorescence correlation spectroscopy, the interaction of a doubly labeled cTAR sequence with NC(12-55) containing NCp7 CCHC zinc fingers and flanking basic amino acid residues. From the chemical rates and the activation energy associated with the conformational fluctuations observed in the absence of NC, it is concluded that such fluctuations are associated with the opening and closing of the double-stranded terminal segments of cTAR. The destabilizing activity of NC(12-55) occurs mainly through a major increase of the opening rate constant of cTAR. Moreover, NC appears to augment the number of pathways between the open and closed states of cTAR, suggesting that it initiates melting of base-pairs at different locations within the terminal segments of cTAR. This activity of NC on the dynamics of cTAR secondary structure is thought to be critical for the formation of the cTAR-TAR complex, which is essential for the specificity and extent of proviral DNA synthesis by reverse transcriptase.

L8 ANSWER 14 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:371152 BIOSIS
DOCUMENT NUMBER: PREV200200371152
TITLE: Fluorescence correlation spectroscopy for in vivo monitoring of resistance mechanisms.
AUTHOR(S): Schots, A. [Reprint author]; Dees, R. [Reprint author]; Goverse, A.; Borst, J. W. [Reprint author]; Bakker, J.; Visser, A. J. W. G.
CORPORATE SOURCE: Lab. of Molecular Recognition and Antibody Technology, Wageningen University, Wageningen, Netherlands
SOURCE: Journal of Nematology, (December, 2001) Vol. 33, No. 4, pp. 276. print.
Meeting Info.: 40th Annual Meeting of the Society of Nematologists. Salt Lake City, Utah, USA. August 25-29, 2001.
CODEN: JONEB5. ISSN: 0022-300X.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Jul 2002
Last Updated on STN: 3 Jul 2002

L8 ANSWER 15 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:360914 BIOSIS

DOCUMENT NUMBER: PREV200200360914
TITLE: Molecular diagnostics of transmissible spongiform encephalopathies.
AUTHOR(S): Ingrosso, Loredana [Reprint author]; Vetrugno, Vito [Reprint author]; Cardone, Franco [Reprint author]; Pocchiari, Maurizio [Reprint author]
CORPORATE SOURCE: Laboratory of Virology, Istituto Superiore di Sanita, Viale Regina Elena 299, 00161, Rome, Italy
pocchia@iss.it
SOURCE: Trends in Molecular Medicine, (June, 2002) Vol. 8, No. 6, pp. 273-280. print.
ISSN: 1471-4914.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Jun 2002
Last Updated on STN: 26 Jun 2002

AB Clinical criteria for the diagnosis of sporadic, iatrogenic and variant Creutzfeldt-Jakob diseases are now available and show an excellent sensitivity and specificity (apprx98%). Post-mortem diagnosis, based upon the identification in the brain of the pathological conformer of the prion protein (PrPSc), is also very accurate, and several diagnostic kits are now available that facilitate the immunochemical measurement of PrPSc. Several new molecular diagnostic techniques aimed at increasing the sensitivity and specificity of PrPSc detection, and at identifying markers of disease that are other than PrPSc, are the subject of ongoing studies. The aim of these studies is to develop preclinical screening tests for the identification of infected, but still healthy, individuals. These tests are also badly needed to check the safety of blood or blood-derived products, and to ensure meat safety in European countries.

L8 ANSWER 16 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:133509 BIOSIS
DOCUMENT NUMBER: PREV200100133509
TITLE: Putting prions into focus: Application of single molecule detection to the diagnosis of prion diseases.
AUTHOR(S): Giese, A.; Bieschke, J.; Eigen, M.; Kretzschmar, H. A. [Reprint author]
CORPORATE SOURCE: Department of Neuropathology, University of Munich, Marchioninistr. 17, D-81377, Muenchen, Germany
SOURCE: Archives of Virology Supplement, (2000) No. 16, pp. 161-171. print.
CODEN: AVISE9. ISSN: 0939-1983.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 14 Mar 2001
Last Updated on STN: 15 Feb 2002

AB Prion diseases are characterized by the cerebral deposition of an aggregated pathological isoform of the prion protein (PrPSc) which constitutes the principal component of the transmissible agent termed prion. In order to develop a highly sensitive method for the detection of PrPSc aggregates in biological samples such as cerebrospinal fluid (CSF), we used a method based on Fluorescence Correlation Spectroscopy (FCS), a technique which allows detection of single fluorescently labeled molecules in solution. Within the FCS setup, fluorescent photons emitted by molecules passing an open volume element defined by the beam of an excitation laser focussed into a diffraction-limited spot are imaged confocally onto a single photon counting detector. Aggregates of PrPSc could be labeled by co-aggregation of probe molecules such as monomeric recombinant PrP or PrP-specific antibodies tagged with a fluorescent dye. In addition to slow diffusion,

labeled aggregates are characterized by high fluorescence intensity, which allows detection and quantification by analysis of fluorescence intensity distribution. To improve detection of rare target particles, the accessible volume element was increased by scanning for intensely fluorescent targets (SIFT). To further improve sensitivity and specificity, two different probes were used simultaneously in a two-color setup. In a diagnostic model system of CSF spiked with purified prion rods, dual-color SIFT was more sensitive than Western blot analysis. In addition, a PrPSc-specific signal was also detected in a number of CSF samples derived from CJD patients but not in controls.

L8 ANSWER 17 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:193365 BIOSIS
DOCUMENT NUMBER: PREV200000193365
TITLE: Rapid and reproducible quantification of hepatitis C virus cDNA by fluorescence correlation spectroscopy.
AUTHOR(S): Weiner, Olaf H.; Alt, Michael; Duerr, Ralf; Noegel, Angelika A.; Caselmann, Wolfgang H. [Reprint author]
CORPORATE SOURCE: Department of Medicine I, University of Bonn, Sigmund-Freud-Strasse 25, D-53105, Bonn, Germany
SOURCE: Digestion, (2000) Vol. 61, No. 2, pp. 84-89. print. CODEN: DIGEBW. ISSN: 0012-2823.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 17 May 2000
Last Updated on STN: 4 Jan 2002

AB Background/Aims: Standard methods for hepatitis C virus (HCV) RNA quantification are time-consuming and often hampered by low sensitivity. Therefore, we aimed to test whether fluorescence correlation spectroscopy (FCS) could be used to read out HCV polymerase chain reactions (PCR). Methods: A single-step reverse transcriptase (RT) PCR system was adjusted to the clinically relevant range of 1 X 103 to 5 X 106 HCV cDNA copies/ml serum. Unpurified amplification mixtures were analyzed by FCS and controlled by HPLC analysis. Results: The outcome of HCV RNA quantitation was nearly identical no matter whether FCS or HPLC techniques were used. FCS-generated standard curves displayed sufficient linearity to allow reproducible determinations. The intraserial variation of cDNA quantification after PCR amplification was +- 3.2%, the interserial variation +- 4.3%. Repeated quantifications of HCV genotype 1b RNA from the sera of 8 patients revealed titers from 1 X 104-5 X 106 genome equivalents/ml. The results correlated significantly ($r = 0.755$; $p = 0.03$) with a widely used commercially available assay. Conclusion: FCS may become a useful tool for rapid and reproducible HCV RNA quantification in the future.

L8 ANSWER 18 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:535124 BIOSIS
DOCUMENT NUMBER: PREV199799834327
TITLE: Fluorescence correlation spectroscopy for rapid and sensitive HCV RNA quantification.
AUTHOR(S): Weiner, O. H. [Reprint author]; Alt, M.; Noegel, A. A. [Reprint author]; Caselmann, W. H.
CORPORATE SOURCE: Dep. Cell Biol., Univ. Bonn, Bonn, Germany
SOURCE: Hepatology, (1997) Vol. 26, No. 4 PART 2, pp. 141A. Meeting Info.: 48th Annual Meeting of the American Association for the Study of Liver Diseases. Chicago, Illinois, USA. November 7-11, 1997. CODEN: HPTLD9. ISSN: 0270-9139.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Dec 1997
Last Updated on STN: 12 Dec 1997

L8 ANSWER 19 OF 21 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1995:432046 BIOSIS
DOCUMENT NUMBER: PREV199598446346
TITLE: Fluorescence correlations, single molecule detection and large number screening. Applications in biotechnology.
AUTHOR(S): Rigler, Rudolf
CORPORATE SOURCE: Dep. Med. Biophysics, Karolinska Inst., S-171 77 Stocholm, Sweden
SOURCE: Journal of Biotechnology, (1995) Vol. 41, No. 2-3, pp. 177-186.
CODEN: JBITD4. ISSN: 0168-1656.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Oct 1995
Last Updated on STN: 10 Oct 1995
AB Fluorescence correlation spectroscopy (FCS), when carried out under conditions with low background as obtained in very small volume elements, is a powerful tool for examining molecular interactions as well as their time dependence. Interactions of biological importance which can be analyzed are hybridization between nucleic acid primers and DNA or RNA targets, between peptide ligands and isolated as well as cell-bound receptors, between antigen and antibodies. Since the interaction can be analyzed rapidly in small volumes without the need for separating unbound from bound ligand, an important application of FCS is envisaged in large-scale drug screening. The sensitivity has been advanced to the point that detection of single dye molecules is possible in the submillisecend range. This opens up the possibility for detecting rare events such as the appearance of pathogens in the early phase of infection or mutants exhibiting unusual properties when screening combinatorial libraries.

L8 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1314359 CAPLUS
DOCUMENT NUMBER: 144:35320
TITLE: Antibody and fluorescently labeled antibody fragment specific to different epitopes of same antigen for immunodetection of prion or food antigen
INVENTOR(S): Kinjo, Masataka; Horiuchi, Motohiro; Fujii, Fumihiko; Sakata, Hiroshi; Tamura, Mamoru; Ueno, Masayoshi; Yanagiya, Takayuki
PATENT ASSIGNEE(S): Japan Science and Technology Agency, Japan; Fujirebio Inc.
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005119256	A1	20051215	WO 2005-JP10043	20050601
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC,				

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2005345311 A2 20051215 JP 2004-166440 20040603

PRIORITY APPLN. INFO.: JP 2004-166440 A 20040603

AB It is intended to provide a detection and/or assay method whereby an abnormal prion or an antigen, for example, an antigenic protein such as a harmful protein contained in a food material can be quickly and accurately detected and/or assayed by a convenient procedure. In detecting or assaying an antigen mol. by using the fluorescence correlation spectrometry (FCS), a fluorescence-labeled antibody fragment and a non-fluorescence-labeled complete antibody capable of binding to the fluorescence-labeled antibody fragment via an antigen are employed. Thus, a significant difference in diffusion speed arises between the fluorescence-labeled antibody fragment not bonded to the antigen and a complex formed by the antigen/antibody reaction among the fluorescence-labeled antibody fragment, the antigen and the non-fluorescence-labeled complete antibody. According to this method, an antigen can be detected and assayed by using FCS, even in the case of an antigen with a relatively low mol. weight such as an antigenic protein, independently from the shape or mol. weight of the antigen and thus antigens over a wide scope can be quickly assayed.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 21 OF 21 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-168568 [17] WPIDS

DOC. NO. CPI: C2001-050389

TITLE: Species-specific detection of organisms, particularly for identifying bacteria causing sepsis, comprises amplification and elongation of ribosomal nucleic acid.

DERWENT CLASS: B04 D13 D15 D16

INVENTOR(S): KRUPP, G; SCHEINERT, P; SOELLER, R; SPENGLER, U

PATENT ASSIGNEE(S): (ARTU-N) ARTUS GES MOLEKULARBIOLOGISCHE DIAGNOSTI

COUNTRY COUNT: 87

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001007648	A1	20010201	(200117)*	GE	46
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9953710	A	20010213	(200128)		
EP 1198597	A1	20020424	(200235)	GE	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001007648	A1	WO 1999-EP5234	19990722

AU 9953710	A	AU 1999-53710	19990722
		WO 1999-EP5234	19990722
EP 1198597	A1	EP 1999-939394	19990722
		WO 1999-EP5234	19990722

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9953710	A Based on	WO 2001007648
EP 1198597	A1 Based on	WO 2001007648

PRIORITY APPLN. INFO: WO 1999-EP5234 19990722

AN 2001-168568 [17] WPIDS

AB WO 200107648 A UPAB: 20010328

NOVELTY - Species-specific detection of prokaryotic and eukaryotic organisms comprising nucleic acid amplification, is new.

DETAILED DESCRIPTION - Species-specific detection of prokaryotic and eukaryotic organisms by nucleic acid amplification, comprises:

(a) amplifying a region of DNA flanked by conserved sequences using primers that contain the sequences;

(b) treating the amplicon with a sequencing primer (SP) that hybridizes to a sequence that is conserved within the organisms being tested for;

(c) performing a chain-breaking polymerization reaction , using only 3 of the 4 deoxynucleotide triphosphates (dNTP) or 3 dNTP and a chain-breaking dNTP, where SP will generate different elongation products (E) from each test organism;

(d) determining the lengths of E; and

(e) identifying the organism by comparing the sequences of E with known sequences.

Optionally one or more similar analyzes are done with different SP to generate a pattern of E that is used to characterize organisms.

INDEPENDENT CLAIMS are also included for the following:

(1) processing and/or concentrating bacteria by lysis of non-bacterial cells then centrifuging to produce a bacterial pellet;

(2) isolating and/or enriching bacterial DNA by lyzing bacteria in the pellet of (1);

(3) kits for performing methods (1) and (2); and

(4) kit for performing the new detection process.

USE - The method is especially used to detect:

(i) sepsis-causing bacteria in blood;

(ii) protozoa (flagellates, ameba or ciliates) in blood;

Salmonella in meat; and

(iii) fish in spawn.

Other applications include:

(i) detecting contaminants in food, seeds etc.;

(ii) detecting helminths, or fungal pathogens (in humans, animals or plants);

(iii) identification of varieties, races etc. in animal and plant breeding;

(iv) investigation of biodiversity; and

(v) (diagnostic) detection of infectious agents in a wide range of tissues.

ADVANTAGE - The method is easy to perform, suitable for routine clinical use, and is highly specific for a very wide range of pathogen types, with simple and inexpensive differentiation between individual species within a type. It can detect even very small concentrations of microorganisms and can be applied to almost any sort of sample.

Dwg.0/0

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=> d his

     (FILE 'HOME' ENTERED AT 15:13:36 ON 13 JUL 2006)

     FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT
     15:19:09 ON 13 JUL 2006
L1          6474 (FLUORESCEN? (S) FLUCTUAT?) OR FLUORESCENCE (W) CORRELATION
L2            27 PATHOGEN AND L1
L3            22 DUP REM L2 (5 DUPLICATES REMOVED)
L4            14 PY>2002 AND L3
                 E WOLF DAVID?/AU
                 E WOLF DAVID E?/AU
L5            73 E2 OR E4
L6             0 D5 AND L1
L7             7 L5 AND L1
L8            21 L3 NOT L7

=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                     106.59     108.48

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                      -3.75      -3.75

FILE 'STNGUIDE' ENTERED AT 15:27:39 ON 13 JUL 2006
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul  7, 2006 (20060707/UP).

=> logoff hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                      1.14     109.62

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                      0.00      -3.75

 SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 15:39:09 ON 13 JUL 2006
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